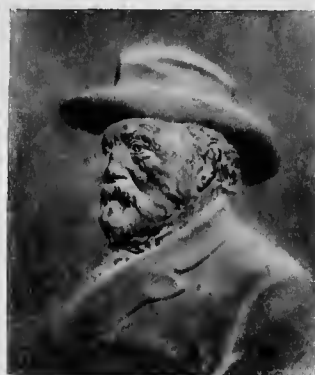


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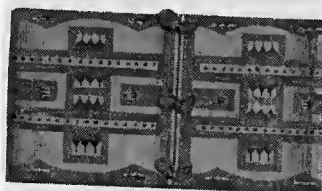
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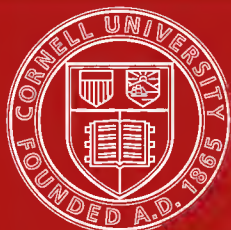


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THE ANTHROPOLOGY

OF THE

State of S. Paulo, Brazil

BY

PROF. DR. HERMANN VON IHERING

Director of the Museum of the State of S. Paulo

Second Enlarged Edition

WITH 2 MAPS.



SÃO PAULO.
TYPOGRAPHY OF THE "DIARIO OFFICIAL"
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Preface to the Second Edition

With reference to its indigenous population the State of S. Paulo offers no particular interest either in the present or prehistoric time. Notwithstanding the matter here treated is not without scientific importance, for the reason that we can now distinguish in a satisfactory manner its different ethnographical elements and put them in relation with historical traditions and with prehistoric antiquities. Probably in this respect, amongst the Brazilian States, only that of Rio Grande do Sul can be regarded as investigated in the same manner.

The first edition of this paper was written somewhat hastily in the interest of the Universal Exhibition of S. Louis. The necessity of a second edition offers me an opportunity to complete the sketch then given and to add the results of recent studies and publications. I have especially enlarged the chapter on historical traditions, adding two maps showing the geographical distribution of the S. Paulo Indians in present and past times and also a chapter on languages.

The design of this paper is only to give a general idea of our actual knowledge of the matter and the reader, interested in some special questions, will find the additional details in my different papers published in portuguese and mentioned in the annexed bibliographical list.

São Paulo, November, 18 1905.



THE INDIANS OF THE STATE OF SÃO PAULO

BY

H. VON IHERING

THE EXISTING INDIANS

The coast of Brazil at the time of its discovery was inhabited by aborigines belonging to the Tupi and to the Tapuya nations. The Tapuyas, former owners of this region, had been driven from the coast to the Serra do Mar and to the interior of the country by the Tupis who inhabited the coast from the mouth of the Amazonas to that of the River Plate (Rio da Prata). The linguistic differences between the Tupis and Tupi-nambás of Rio de Janeiro and of the north of Brazil and the Guaranis of the south of Brazil were so slight that the Portuguese could easily make themselves understood by most of the natives all over the country hence the name of *Lingua Geral* (general language) was adopted for the several Tupi dialects.

For the same reason the priests used the *Lingua Geral* in the catechisation of the Indians, and most of the names of localities, native animals and plants are derived from it.

The name Tapuya given to the tribes, which were not Tupis, only, as appears, for practical purposes, has been recognised as well founded by recent investigations, which show us that these numerous tribes are

related, not only in an ethnographical point of view, but also in regard to their physical characteristics. In general the cranium of the Tapuyas is dolichocephalous and that of the Tupi brachycephalous. Tribes of the Carib and Aruac families, fully represented in the central and western parts of Brazil, never existed in the eastern and southern parts. The fact that the aborigines, found in the four southern States of Brazil belong to two groups, the Guaranis and the Gês, which are the predominant element of the Tapuyas, agrees with this historical sketch. The number of existing aborigines in the State of S. Paulo is greatly reduced, probably not exceeding ten thousand.

Their distribution in the State of São Paulo is such, that in the valley of the river Paranapanema and the extensive forest regions traversed by its affluents, the Indians are wild and heathen, while those living in villages, along the coast and in the southern part of the State, are converted. Now let us examine these several elements separately.

The **Guaranis** or southern Tupis are all christians and have in general use, the utensils, dress and customs of the Brazilians, whose family names they have adopted and whose language they understand more or less. The Guaranis of Rio Verde, who nearly every year visit the capital of the State to complain against the usurpation of part of their lands by the neighbouring planters, have preserved few of their ancient customs. Other groups of Guaranis live along the coast between Santos and Iguape, and they still know how to make pretty fancy articles of coloured feathers. They are already partly crossed with the element of the Brazilian population.

The **Cayuás** of the valley of the river Paranapanema represent the independent but savage Guaranis who only so late as the years 1830-1852, immigrated

from Paraguay and the southern part of Matto Grosso to their present home in the States of S. Paulo and Paraná.

Their colour is a yellowish copper, and they are of medium height. The men go about with nothing on but belts, and the women wear a narrow strip of *embira* or else a cloth called *cheripá* around their waists. The men wear their hair short and make a slit in their under lips into which they put a transparent cylinder about 20 cm. in length made of Jatahy resin and called *tembetá*; the women paint stripes on their faces. They make earthenware in which they cook and keep their food. Their weapons are the bow and arrow, spear and club. The arrows are furnished with long wooden heads either smooth or indented on one or on both sides. More detailed accounts of the Cayuás of Alto Paraná than of those of the Paranapanema valley which we owe chiefly to Dr. Theodoro Sampaio, are those which are contained in a valuable monograph by Ambrosetti. We learn from this that they have already abandoned some of their old characteristic customs such as that of sleeping in hammocks and that of the « couvade » according to which the father stayed in bed instead of the mother when a child was born. That the man, as well as the woman, subjects himself to a rigorous diet before the birth of a child may be considered as a relic of this custom. These secondary characteristic modifications make the ethnological study very difficult, so that a complete record can be obtained only by comparing the existing conditions with those found related in old writings. Thus one of the abandoned customs of the Cayuás is cannibalism, while they still practise polygamy. They bury their dead in a squatting position in their huts to which they then set fire. Formerly they used large funeral urns for their dead. The old custom of sleeping in hammocks is nearly abandoned, for the small hammocks found in their huts are now mostly used to sit in, and for the

children. The adults usually sleep on the floor. The present Cayuás are noted for their sobriety and they do not prepare alcoholic drinks. They are rather timid and use amulets which they call *payé*, for love and the chase. Their huts called *tapui* are spacious, built with vertical walls of wooden strips plastered with clay, the roof being covered with palm leaves.

They are built in the woods where they also make clearings for planting. Their chief food is maize, but manioc, potatoes and cotton are also cultivated, from which latter they weave cloth and make fine caps, etc. The men are good hunters and fishermen and catch animals in different kinds of traps. Dr. Theodoro Sampaio informs us that he found Guaranis and Cayuás in the valley of the Paranapanema. It is to be remarked, however, that the differences between them are very slight, the Guaranis being of a somewhat lighter colour and consider themselves different from the Cayuás. Perhaps the Guaranis constitute the older element and the Cayuás the later immigrations.

The name of these Indians is written Cayuá or Cainguá and should not be confounded with that of the Cayowas of the Alto Tapajoz. The name Cayuás is sometimes written «Caingue» which explains the possibility of confounding this tribe with that of the Caingagues. Siemiradzki distinguishes Cainguás and Caingues among the Indians of Paraguay and Ehrenreich mentions (N. 10, p. 88) Kainguá and Kaiowa, but on the map they are mentioned as Caioa and Cangua. All these authors leave no doubt that the tribes referred to belong to the Guarani family and Castelnau says the same of his Cayowas of Paraguay, which as I said before, should not be confounded with the Cayowas of the Alto Tocantins.

For the future, to avoid mistakes about the Cayuás of the south of Brazil and Paraguay, and those of the river Tocantins, it will be convenient to designate the Cayuás of south Brazil by the name of Noto-cayuás.

The **Caingangs**.—The dreaded Bugres of south Brazil, who destroyed such numbers of the inhabitants of the *sertão* (the far interior) belong exclusively to this group of Indians. The old name of this group was Guayanás but it fell into gradual disuse and is now used only in the west of the State of S. Paulo, in the municipalities of Itapeva and Faxina. They are now generally known under the names of Bugres and *Coroados* (crowned) the latter name referring to the custom of cutting the hair on the top of their heads so as to form a crown; but this fashion has been abandoned by some of the tribes. The name Coroados, however, is most inappropriate, because it leads one to confound them with the true Coroados of the States of Minas and Matto Grosso.

Although it has long been well known that no true kinship existed among the aborigines comprehended under this name in the south of Brazil and in Matto Grosso, still there are always arising mistakes such as lately happened to the eminent linguist Brinton, who grouped together the Caingangs under the name of Coroados, and the Camés with the Coroados and Carijós (N. 8. p. 269), separating them from the Tapuyas, whilst the Guayanás are erroneously considered as belonging to the Tupi family. For this reason, we have become accustomed in Brazil to call these Pseudo-Coroados of South Brazil, Caingangs. It is the name they give themselves; it means «people of the woods». It is a remarkable coincidence that the word «ca» means woods also in the Tupi language.

It was Telemaco Borba who first, in 1882, introduced this term into scientific literature being shortly afterwards followed by the Visconde Escragnolle Taunay. It is to be remarked however that instead of using the general name for the group, the local names of the several component tribes of the group are used. It is thus that the name Socré is evidently used as identical with that of Xocren, used in the State of Paraná,

and in the same State as well as in S. Paulo the name Camês has been perserved for a tribe living in the plains. The different tribes of which the Caingangs are composed in the State of Paraná, are, according to Taunay : Camês, Votorões, Dorins, Xocrens and Tavens.

In the State of S. Paulo we must mention the Camês said to live in villages along the coast between Santos and Iguape, the Guayanás of Itapeva and Faxina, and the Caingangs of the valley of the Paranapanema and its affluents, who are generally called Coroados. It was these who during the years of 1880-1886 made many barbarous assaults and committed numberless murders thus making the peopling of that region extremely difficult. The data in regard to this subject are found collected in Dr. Theodoro Sampaio's report (N. 41, p. 107). The same Caingangs attacked and exterminated the expedition of Monsenhor Claro Monteiro which was to have explored the river Feio in the sertão of Baurú, killing him May, 22^a, 1901.

Recently the expedition of the geographic commission destinated to explore the region of the Rio Feio under the direction of Dr. Olavo Hummel was also attaked on the 18 of July, 1905, by the Caingangs, the chief of the expedition and two servants being wounded.

The Caingangs live in small villages of little huts thatched with palm leaves and belonging to the different families.

The huts are rounded above, made of sticks and without separation of roof and wall.

A fire is kept burning day and night in the huts, and the occupants sleep on the bark of trees with their feet turned towards the fire.

The men go about naked ; in cold weather however, they use coverings of a coarse cloth made of the fibers of the *ortiga brava* (nettle). This cloth ornamented with outline drawings is an industrial spe-

ciality of the Caingangs. Their food is chiefly game and wild fruits; they cultivate maize and gather large crops of *pinhões* (fruit of the *Araucaria brasiliensis*). The *pinhão*—trees form an important factor in the life of the Caingangs and it seems to me that their former distribution must have been identical with that of the *Araucaria brasiliensis*.

Their weapons are bows and arrows; the arrow-heads are made of stone, iron or the bones of monkeys. They do not use heads made of bamboo neither do they ordinarily use wooden ones though probably some tribes have temporarily adopted this kind of arrows from their neighbours. Polygamy is practiced, but in general, the number of wives is limited to two or three. For their feasts, they prepare an alcoholic drink made from *pinhões* and maize. They bury their dead in the ground, and make a tomb of about 2 m. in height of a conical shape. In general they are not a boating race being but little accustomed to live on the great rivers. They seem to have learned this art, as well as that of fishing, from their neighbours the Guaranis, for it is remarkable that the word for fish (*pirá*) and that for weir (*pari*) are from the Tupi language. Their meat is roasted; they neither eat raw meat nor are they cannibals; they do not use salt. They make a kind of bread from rotten maize.

The **Chavantes** of the valley of the Paranapanema are not, as Ehrenreich thought, a tribe of the Caingangs but an independent group of the Gês family. Two vocabularies of their language are published by Mess.^{rs} Ewerton Quadros and Telemaco Borba. It is evident from the same that their language is different from that of the Chavantes of Goyaz and Mato Grosso and for that reason the name of Eochavantes (H. von Ihering N. 19, p. 42) has been given them. For the best information we have in regard to these Chavantes of the State of S. Paulo, who live in the

plains between the lower courses of the rivers Parapanema and Tietê, we are indebted to General Ewer-ton Quadros, which is as follows.

Of all the Indians of S. Paulo, the Chavantes are the darkest in colour and the most backward in culture; they subsist on game, insects, larvæ and, when driven by hunger they rob the plantations and kill the domestic animals of the *sertanejos* (inhabitants of the *sertão*) but they are not otherwise dangerous as they do not attack people and are timid; when domesticated, they are docile and faithful. They have small feet, thin legs, protuberant abdomens, salient cheek-bones and small horizontal eyes. Their bows are made of the wood of palm-trees and the heads of their arrows of the heart of the rosemary (*alecrim*), barbed only on one side; their lances are made of the heart of the lentisk (*aroeira*), 250 cm. long for men and 150 for women. All of them, men, women, and children wear a girdle around their waists made of *embira*, that of the women having an appendage which passes between the legs. All of them cut their hair into a fringe around their heads, and make longitudinal slits in their ears.

They wear necklaces made of the teeth of animals, and neither make nor use earthenware. Their huts made of palmleaves are very low and small, not having room enough for more than one couple. The Chavantes are opposed to polygamy and do not employ their weapons against man. Most of the words of the vocabulary of the Cayuás and the Coroados are accented on the last syllable and those of the Chavantes for the most part on the penultimate.

The present Indians of S. Paulo do not represent an element of labour and progress. As in the other parts of Brazil no serious and continuous labour can be expected of the civilized Indians and as the savage Caimgangs are obstructing the colonisation of the forest regions habitated by them, no other final result seems possible than that of their extermination.

The conversion of the Indians has given no satisfactory results. The Indians that have mixed with the immigrated portuguese population have exercised a bad influence on the rural population. It is my conviction that it is due essentially to this circumstance that the State of S. Paulo is obliged to introduce thousands of immigrants as it can not count in a sufficient and sure manner for the service of its plantations with the existing rural population.

HISTORICAL TRADITIONS.

From the above description of the Indians who at present exist in the State of S. Paulo it is evident that they have lost most of their former characteristic customs. In general, the converted Indians, living in villages of this State, offer no ethnographical interest, and those which in this respect are worthy of attention, live retired and inaccessible, making them dangerous to the thinly scattered civilized population of the sertão, as happened this year in the municipality of Baurú from the Coroados. In these conditions our knowledge of the customs of these aborigines would have been very incomplete without the valuable information contained in the literature of the sixteenth century. In this respect the « Roteiro Geral do Brazil, de Gabriel Soares de Souza » of 1587, is of the greatest importance.

Though the author did not live in S. Paulo, he manifests great knowledge of the tribes which then inhabited the territory of the State of S. Paulo. The principal ones among these, according to his narrative, were the following: The Tupinambás, the Carijós and the Guayanás. Of these last, the author informs us that they slept on the floor and that their language was different from that of the Tupis. Thus it is proved that the Guayanás were the ancestors of the Caingangs, who in certain districts of the west of the State kept the name of Guayanás up to the last century. The Guayanás

at the time of the discovery of Brazil lived in the Serra do Mar and in the plains where the capital of S. Paulo is now situated. The Carijós lived between Cananéa and St.^a Catharina, while the Tupinambás and Tupiniquins had possession of the region between Santos and Angra dos Reis, near Rio de Janeiro.

Hans Staden, who lived as a prisoner among the Tupinambás northward of Santos, in the years 1549-1554, published an interesting book on his captivity among the savages. This book is by critical study recognised as truthful, particularly with reference to things which he himself could observe. The information obtained from other sources, as, for example, the cannibalism of the Guayanás does not deserve the same credit. The cannibalism common among the Guaranis and Tupis, was not practised by the people of the Gês family. Thus Ewerton Quadros affirms that the Cayuás devoured their prisoners, while we know that the Guayanás and Caingangs never tasted human flesh.

The Tupys as described by Hans Staden were an energetic and bellicose people and being hardy navigators, they undertook in their feeble canoes bellicose expeditions to great distances. Their spacious huts destined for a great number of families, were assembled in villages, fortified by means of pallisades, on the top of which were often put the skulls of their enemies killed in battle. They slept in hammocks and nourished themselves not only by means of hunting and fishing, but also by the products of their plantations. Cannibalism was common among them.

The Guayanás, on the other hand, according to Gabriel Soares, were not given to cannibalism and they treated their prisoners mildly. They did not sleep hammocks, but on the ground and those which lived in the prairies made their houses in caves in the ground. They made no plantations. The Guayanás were not very bellicose, entering into good relations with the

portuguese, who, however could not expect good service from those they had captured as slaves.

The Carijós much resemble in their culture the Tupis, but they were of milder character and were not cannibals, or abandoned early this custom, at least in southern Brazil. In Paraguay however Ulrich Schmidel found them devoted to cannibalism. While the Tupinambás went naked, the Carijós used fur mantles and the women used shirts made of cotton. The characteristic ornament of the Carijós is the *tembetá* made from resin and worn in the under lip. The Carijós were widely distributed in southern Brazil and Paraguay, each family occupying a single hut. Before the discovery of South America they appear to have extended their domicils more to the South. Lafone Quevedo (N.º 25 p. 37) says that the guarani language was spoken at the time of the discovery only by the population of the islands, situated in the mouth of the La Plata river and in the adjacent part of the northern border of this river. Evidently these few Guaranis were the rest of a great mass of population destroyed or driven away by other tribes.

The different authors are not in accord with reference to different Indian tribes and Gabriel Soares gives no detailed information regarding the Tupiniquins. Hans Staden however informs us that the Tupiniquins who lived in good relations with the Portuguese occupied the litoral in an extension of 40 leagues and about 80 leagues inward and also in a letter of the Father Joseph de Anchieta of 1565 * mention is made of the Tupiniquins of S. Vicente.

Some Central-brazilian tribes, not represented at present in the State of S. Paulo, reached formerly this territory.

* Rev. Inst. Hist. Tomo III, Rio de Janeiro, 1841 (reprinted 1860) p. 250.

Von Martius states (N.º 33 p. 264) that the Capapós of Matto Grosso formerly lived also in the State of S. Paulo on the lower course of the Tietê river and between it and the Paranyhyba river. On the other side of the State, the Puris, who were domiciled in the States of Minas and Espirito Santo, formerly lived also in the northern part of the State of S. Paulo, where in the year 1800 S. João de Queluz (*) was established as a colony of them. According to frei Gaspar da Madre de Deus the domicile of the Jeronimes and Puris in the State of S. Paulo extended between Guaratinguetá and Taubaté. The reader will understand better the actual and past distribution of the Indians of S. Paulo by comparing the two maps which give the present distribution of these Indians and that of the time of the discovery.

Hans Staden enumerates as enemies of the Tupinambás the Goyatacaz at the North and the Carajás at the West. It seems therefore that the Carajás occupied in early times parts of the Northwestern region of the State of S. Paulo.

The Tamoyos, who lived at Rio de Janeiro and Angra dos Reis, allied themselves on certain occasions with the Tupinambás and some authors treat the Tamoyos and Tupinambás as identical.

In distinguishing them I am in concord with Gabriel Soares and Hans Staden, who expressly said that the Indians of the northern coast of S. Paulo, among whom he lived called themselves Tupinambás.

I can find no exact information with regard to the Tremembés of the Tapuya family; they seem to

(*) On this matter please compare the notes of the Vigário Francisco das Chagas Lima (Rev. Inst. Hist. Tomo V, 3.º ed., Rio de Janeiro 1885, p. 72), as also Frei Gaspar da Madre de Deus, loc. cit. Tomo XXIV, Rio de Janeiro 1861, p. 554. The Visconde de Porto Seguro (N.º 39, vol. I p. 19) affirms that the Puris lived also at Taubaté.

have lived in the northern part of the State, where up to the present time different localities bear this same name.

Another tribe in regard to which we are incompletely informed are the Itanhaens who inhabited the coast of S. Paulo southward of S. Vicente at Itanhaen and to whom reference is made by Machado de Oliveira (N.º 28, p. 230). It seems that they belonged to the Guayana family and perhaps they are identical with the Camés from the southern coast of S. Paulo, mentioned by von Martius. I have not yet been able to verify if remnants of these Camés still exist in the southern littoral zone of S. Paulo, where the name of the Camés at present is unknown.

With reference to the Guanaos I have elsewhere given the necessary data (N.º 16, p. 58). This people, a member of the Guarani family, lived in the northern part of Rio Grande do Sul and adjacent parts of S. Catharina. Gay communicates (N.º 14, p. 72, 188, 195) a letter of the year 1683 of the Father Garcia, who visited this tribe in this region.

The Tamoyos were related to the Tupinambás as were also the Teminiños who were domiciled on the coast between Angra dos Reis and Rio de Janeiro. This is the reason why, as above stated, we find at times mentioned in the history of the State of S. Paulo the Tamoyos, where we should expect the name of the Tupinambás. Pedro Taques de Almeida (N.º 52 p. 144.) for example says that the Portuguese after founding in 1531 S. Vicente, were exposed for three years to the struggles with the Carijós, Tamoyos and Guayanás. And in 1562 the city of S. Paulo, founded in 1560, was attacked by Indians among whom we find mentioned the name of the Tamoyos in combination with the Tremembés, said to be Tapuias and with a part of the Guayanás. The history of this episode is well described by Machado de Oliveira (N.º 29 p. 59).

Hans Staden has only the name of Tupinambás.

for these Tupi Indians of the northern coast of S. Paulo; he says that their enemies were at the north the Goyatacazes and at the west the Carajás. It seems therefore that these Indians now almost restricted to Goyaz, but formerly extending on either side to Minas and Matto Grosso, in early times inhabited the north-western part of the State of S. Paulo. Generally speaking the Tupinambás and allied tribes were in the early times of the european dominion the allies of the French and the enemies of the Portuguese, while the Guayanás and Tupiniquins were their friends. As these two peoples then lived partially united at S. Paulo and as the language adopted by the Portuguese was the Tupi, we can not doubt that the Guayanás must have had some knowledge of the Tupi language and probably also their family names, used by the Portuguese, were taken from it. It is therefore difficult to say if Tibiriçá and other *caciques* of Piratininga belonged to the one or to the other of the two peoples. We know however that within a few years after the foundation of S. Paulo the Guayanás abandoned this city and established themselves at a little distance in the villages of S. Miguel and Pinheiros. This seems to indicate that the dominant element was that of the Tupiniquins, as seems also quite natural since the Guayanás of S. Paulo belonged to the more peaceful section, occupying the open prairie country. One of their sections is known by the name of Camés, a word which signifies in the Caingang language: «cowards». The predominance of the Tupiniquin element at Piratininga (São Paulo) is proved also by funeral urns found in Piratininga - Street of the present city and now deposited in the Museu Paulista. I have therefore no doubt that the above mentioned chiefs of the Piratininga Indians belonged to the Tupiniquin people as has also been pointed out by Dr. Washington Luiz in the session of the S. Paulo Historical Institute in July 1903. The ancient writers give no information

regarding the nationality of these chiefs, and the affirmation of Frei Gaspar da Madre de Deus, that Tibiriçá was a Guayaná is therefore worthless.

Having brought together as far as possible all the data, referring to the ancient and present distribution of the Indians of S. Paulo and the neighbouring States, I have organized the two maps which accompany this paper. The comparison of these maps leads to some interesting results as follows:

I) The great diminution of the indigenous element, partly by the extermination, partly by the mixture with the rural immigrated element.

II) The complete disappearance of the Tupi-tribes.

III) The preservation of a part of the ancient Guaranis and Carijós in southern Brazil and Paraguay, where they are now called Guaranis, Arés and Cayuás.

IV) The preservation of a great part of the ancient Guayanás in southern Brazil and Paraguay, principally in the uncolonized forestregions of the Paranásystem.

V) The disappearance in the State of S. Paulo of certain central Brazilian tribes, such as Cayapós, Puris, Carajás, etc., all of which in ancient times occupied a much larger area.

A circumstance which renders difficult the comparative study of the Brazilian Indians is the unsatisfactory state of our general knowledge of Brazilian ethnography. Some of the northern groups of Indians, such as Caraihs and Nu-Aruak have been elucidated by the studies of Ehrenreich and von den Steinen, but these groups were never represented in the southern Brazil.

The greatest present difficulty is the exact definition of the Gês and Crens of von Martius. Ehrenreich however separates the Puris and allied tribes from the Gês on linguistical grounds, but I cannot accept this view. The linguistic differences between the dif-

ferent members of the Gês family are very great and even among the southern Gês group, such striking differences are noted, as those between the Caingangs and the Ingains. It must be remembered that all these differences so far as indicated, are not only those of vocabularies. My experience with reference to the Caingangs led me to the opinion, that there are no essential grammatical differences between the Tupi and the Caingang language. On the other hand Ehrenreich gives some characteristic features of the Gês, of which however two only are common to the different Gês tribes. The absence of the hammock and the slight development of navigation. The wooden disks used as ornament in lip and ear, mentioned by Ehrenreich as characteristic of the Gês, are not employed by the Caingangs and Chavantes and the same must be said with relation to the arrows with bamboo heads. Among the south brazilian Indians no arrows with bamboo head are in use. The arrows of the Chavantes have wooden barbed heads, the Caingangs beside arrows with wooden heads use also heads of bone. A detailed examination of the distinctive characters gives therefore no basis for the division of the Tapuyas in Gês and non-Gês. I believe it therefore not possible at present to proceed to a correct classification of the Tapuya Indians of southern and central Brazil, but I believe that we can already recognize with Martius and Ehrenreich the Carajás as an independent group of Indians. With reference to the State of S. Paulo this question is of lesser importance, as the Indians of this State belong only to the two families of the Tupis and the Tapuyas, as we shall call the Gês of Ehrenreich, who, as already noted are not identical with those of von Martius.

The Tapuyas, as here comprised, are nearly identical with those of C. von den Steinen (N.º 49 p. 315 and N. 50 p. 157.), with the difference that von den Steinen excluded from his Tapuyas the Puris.

THE LANGUAGES.

The only Indian language, well known in the State of S. Paulo is the guarani. This language, the «avanhehen» as it is called by Couto de Magalhães in opposition to the «nhehengatú» or tupi, is the dialect which is spoken in southern Brazil and Paraguay, while the similar northern dialect is the tupy. The wide distribution of this language from northern to southern Brazil was very useful to the conquerors as also to the catholic priests, who formed from these dialects the so called «Lingua Geral» or general language. Although the number of linguistic works is considerable, the dictionary of the guarani language by Montoya and the tupi dictionary of Baptista Caetano de Almeida Nogueira are those which can be employed most advantageously.

A knowledge of the tupi language is very necessary for all who are devoted to brazilian historical and anthropological studies. In a paper on the tupi-names of the indigenous honey bees I have shown that the ancient inhabitants of S. Paulo were very familiar with the specific and biological characters of these insects, having possessed generally a good knowledge of the indigenous plants and animals. I must confess however that two competent friends, Dr. Theodoro Sampaio and Colonel Jorge Maia are not in accord with me in some points. For my part I would not have studied the etymology of the names of these and other brazilian animals if I were not convinced that the knowledge of the zoological and biological properties of the different animals should form the basis for such investigations.

In point of fact some of the derivations opposed to mine attribute small size to relatively large bees, etc., and I continue for this reason to believe correct my etymological explanations, being without possibility to explain some other.

In a similar manner the different researches on the etymology of brazilian local names have not yet furnished a satisfactory result. Almost at the same time there appeared in S. Paulo two works on this subject, of which that of Dr. Theodoro Sampaio presents itself as a continuation of the excellent work of von Martius, while that of Dr. João Mendes de Almeida takes a quite different direction.

This author admits no local names derived from the animal and vegetable kingdom. Thus Jacarehy, the «alligator river» is explained «unnecessary round-about way» and even such genuine portuguese words as «Cardoso», «Campinas», «Casa Branca», are explained as belonging to guarani dialect.

At present, after the death of Baptista Caetano de Almeida Nogueira, Platzmann, Couto de Magalhães and Macedo Soares, there are but very few investigators interested on the tupi language, the most prominent among them being J. Barbosa Rodrigues of Rio de Janeiro, Jorge Maia at Botucatu, Theodoro Sampaio of Bahia, but to whom other occupations leave little time for such studies. Colonel Jorge Maia has written a dictionary of which only one fascicle was published, but which is worthy of a complete edition. It is evident by the foregoing notes that it is highly desirable that professional linguists should undertake complete studies on the tupi names.

The second group of languages well represented in the State of S. Paulo is that of Caingang, to which belong the so called Coroados of S. Paulo. These Indians belong to the family of Guayanás, which in prehistoric time were distributed from northern Argentina through southern Brazil to Bahia. The actual representatives of this group of Gês-Indians are divided in two sections, the Caingang of S. Paulo and the rest of southern Brazil and of S. Pedro in the Missions-territory of the Alto Paraná and the Ingains and Guayanás of the Alto Paraná. These two sections are linguistically somewhat different, but apparently related

while no other language of the Gês-family has hitherto been discovered which offered linguistical affinity with the Guayaná group. In the State of S. Paulo the name Guayanás was still used in the past century for the Caingangs of Itapéva.

I do not here enter largely into this matter, as it has been discussed in my paper on the Guayanás (N. 19) where also all the respective vocabularies at present known are enumerated. These are nothing more than collections of words and I do not know of any effort to establish the grammatical and linguistical rules of this language. If I am correctly informed, we may expect an important contribution in this respect from the competent specialist for american languages, Dr. Lucien Adam.

With reference to the Chavantes of the north-western region of the Stat. of S. Paulo, Ehrenreich (N. 10, p. 116) was incorrectly informed saying that erroneously the Caingangs are called Chavantes. The Chavantes of S. Paulo living on the lower course of the Tieté and Paranapané rivers are quite different from the Caingangs and their language is different from that of the Caingangs as well as from that of the Chavantes of Matto Grosso.

For this reason I have called them Eochavantes. We possess two vocabularies of their language, one published by General Ewerton Quadros (N. 12), the other by Telemaco Borba (N. 7). The language of the Eochavantes seems to be somewhat related to that of the Gês, but I was absolutely unable to discover any nearer affinities between it and other central-brazilian idioms. As the two mentioned vocabularies are little known I give here a reproduction of them.

VOCABULARY

of the Eochavantes of S. Paulo (« Chavantes »).

	<i>After Telemaco Borba</i>	<i>After Ewerton Quadros</i>
Water	Diêlsede	Ocochia
Anta	Apila	Apila
Arara	Uida	
Bow	Inhestecude	
Roast	Mendoa	
Belly	Eltuê	Etiu
Arm	Esteinde	Aquejuê
White	Jaque	
Fight	Uirjelem	
Bugio	Ontirra	
Hole	Birrua	
Head	Ursube	Ufubi
Field	Iuartle	Folhabe
Capivara	Othigúe	
Wax	Ogode	
Eat	Iacabe	
Long	Umostiara	
Snake	Apalaiao	Palaiac
Run	Tauyemne	
House	Igobe	
Rain	Chanin	
Day	Uotue	
Throw away	Bóje	
Star	Tuasla	Tuasla
Fire	Iná	Achô
Arrow	Tórta	
Jaboticaba	Uarriga	
Jacú	Guaiacú	
Stand up	Escoguelabe	
Otter	Nectube	
Moon	Quijade	Guiáde
Macaco	Cai	
Ax	Endá	
Macuco	Tú	
Mother	Fidua	Idúa
Hand	Insua	
Kill	Nhadable	

	<i>After Telemaco Borba</i>	<i>After Ewerton Quadros</i>
Forest	Diguède	
Boy	Itarduède	Estonduède
Maize	Chantle	
Young man	Téuède	
Mosquito	Itobi	
Much	Leilebe	
Wife	Hipipá	Donduede
Girl	Uictoma	
Nose	Assondaile	Sonduái
Night	Oteiaque	
Eye	Athli	
Ear	Acouxe	Acóti
Father	Athrabe	Ascaba
Pot	Déxe	
Parrot	Guatá	
Stick	Tajane	
Foot	Jube	
Stone	Ratcha	
Fish	Erredebe	
Leg	Eteque	Etge
Neck	Atua	
Wild bear	Inthla	Inchéla
Black	Hon	
Quati	Etecubetei	
River	Dielsede	
Set down	Roiabe	
Sun	Esquentabe	Esquentable
Cudgel	Inhare	
Ant bear	Alabe	
Taitetu	Tothle	
Earth	Biroa	
Tiger	Cuatá	Quatá
Tucano	Flongue	
Uru	Tofoaca	
Deer	Jagode	Jagode
Old	Cueje	Equéri
Come	Heunôde	
Red	Najede	
One	Pequinhe	
Two	Iotonura	
Three	Geleidopa	
Man	—	Inuáde
Sky	—	Atáve

	<i>After Telemaco Borba</i>	<i>After Ewerton Quadros</i>
Thunder	—	Catiága
Lightning	—	Iatúme
Honey	—	Concédo
Brother	—	Váca
Sister	—	Forte
Forest indian	—	Culi
Hair	—	Etecho
Forehead	—	Cúa
Eye-brow	—	Inóne
Mouth	—	Afot
Teeth	—	Vé
Chest	—	Iustúa
Finger	—	Iquéce
Knee	—	Euíque
Blood	—	Astaete
Tatú	—	Eféga
Partridge	—	Foguedai

The word «tata» (fire) is a genuine guarani word and it is of interest that the Caingangs conserved also for «tata» the true Caingang term «py» or «pin». The other vocables are different, not only from those of the Caingangs, but also from those of the Ingaius and Guayanás. The so called Botocudos, of the States of Paraná and S. Catharina, for which I have proposed the name of Notobotocudos, have therefore no direct relations with the true Botocudos, but represent an isolated grup of the Southern Tapuyas. Further the linguistic and ethnographical investigations are necessary to discover their ethnographical affinities.

The examination of the small vocabulary of the Notobotocudos, here communicated, proves that the syllable «ne» in connection with the words designating parts of the body, represents a pronominal suffixes, signifying mine or thine. The use of these pronominal suffixes is the same in this language as in that of the Caingangs and Tupys. Other characteristic features of the Tupy and Tapuya idioms are also common to both groups of languages. Thus the augmentative and diminutive suffixes are used in the same manner. Iguassú, meaning

I: water or river and *Guassu*: large, great, in the Tupy language, corresponds completely to «*goio-en*» of the Caingangs. The adjective valour of the first of the two words of an composed term and much other particularities proove that there is no essential difference between the Tapuya and Tupy idioms. We will say more that the lexical differences even between not very different ethnographical groups of the Tapuyas are greater than *a priori* should be expected and the real affinities of these tribes cannot be discovered only by linguistic studies, but by the cooperation of anthropological and ethnographical investigations.

In addition to these communications I may join some few words on the Botocudos of the State of Paraná, of which I have had occasion to examine some individuals who came at S. Paulo in company of Caingangs from the country of Tibagy.

I am informed by Dr. Romerio Martins, Director of the State Museum of Curityba, that there exists also Botocudos between the head-waters of the rivers Iguassu and Uruguay. I give in the following the small collection of words both of these Botocudos and of the Corôados or Caingangs of Tibagy. As these Southern «Botocudos» have no relations with the true Botocudos of Espirito Santo, I give them here the name fo Notobotocudos.

VOCABULARY OF THE NOTOBOTOCUDOS AND CAINGANGS
OF THE COUNTRY OF TIBAGY (PARANÁ)

<i>English</i>	<i>Notobotocudo</i>	<i>Caingang</i>
hand	ndepá	ingmingá
food	chépäch	ipên
nail	nepnapê	ningrú
eye	niapoá	catnan
nose	nejaputá	ningé
hair	neacă	iignain
head	nderabá	—
beard	nendebá	—
tooth	nereng	iengriá
leg	necupô	—
arm	nendjuvá	—
fire	tátá	tátá, py.

ARCHEOLOGICAL INVESTIGATIONS.

In general the narratives of the historians of the sixteenth century are altogether deficient concerning the weapons, customs and utensils used in the daily life of the aborigines.

To fill in this hiatus is the office of archeological investigation, the principal results of which we shall now proceed to give. The division of primitive culture into a paleolithic and a neolithic era, which has proved so prolific in the archeological studies of Europe, is not applicable to the prehistoric culture of S. Paulo, nor to the greater part of Brazil.

It is quite possible and even probable that the pleistocene men of Lagoa Santa in Minas lived in the paleolithic era, but up to the present neither from Minas nor from S. Paulo are any human implements known to have been found in pleistocene deposits in an undisturbed and original position. The stone weapons and utensils which occupy such prominent positions in the archeological exploration of Brazil are found in alluvial soil and some are polished, whilst others are simply split.

To the latter group belong the arrow-heads of which the larger may have been used for lance-heads.

It is not the material of which the article is made, but the use to which it is to be designed that in this case decided its make. While the *tembetás* or ornamental stones which the Indians put into the slits of their lower lips are, without exception, polished, the arrow-heads are split. These and the *tembetás* were made of the same material, rock-crystal or quartz, as is proved by the specimens exhibited in the Museu Paulista. The only polished arrow-heads, found in the interior of the State of S. Paulo, are those of agate, barbed on one side only, but these seem to represent harpoon-heads. It is probable that the curious biconical objects of polished stone, which look like the *virotes* used by the Indians are also arrow-heads. The

purpose of the so called *virotas* blunt wooden arrow-heads was to stun the birds with the shot so as to take them alive, the stone-*virote* might have been used to knock down the large and heavy fruit of the *pinheiros* (*Araucaria brasiliensis*). The polished axes were not weapons, but were used to cut down trees to make clearings for their plantations, and also as hoes. These last are large and have two notches on each side of the blunt end.

The different axes are distinguished not only by their shape, size and material, but especially by the blunt end, which in some, is narrow and long, so as to be put through a hole in the handle, in others short and thick so as to be fixed into a hollow in the thick end of the handle. Among those of the latter type, the half-moons (Ankeräxte) are most worthy of special attention; they were the distinctive signs of the cacique and are used for ceremonial purposes, chiefly at the killing of their prisoners.

The small axes served as choppers for domestic use and most of them were without handles; some had their blunt ends covered with leather or cloth and others had little hollows on either side for the forefinger and thumb. The same little holes are found in stones of the shape of a thick disk or flat cheese and which are called hammerstones in North American archeology. In S. Paulo we had previously called them nut-crackers, it being probable that they were sometimes used as such, though that they were more generally used as hatchets and hammers is proved by the occurrence of these little holes in some small polished axes. In comparatively great numbers are found polished stone pestles more or less cylindrical in shape which were used to pound maize and other grain in mortars mostly made of wood, such as are yet used all over the interior of Brazil. In S. Paulo and along the coast of the south of Brazil small flat, fish or bird-shaped mortars 20 cm. long are found

having a small shallow cavity in which to grind paints and other fine drugs. It seems that these zoomorphic mortars, sometimes called zoolithes formed an artistic speciality of the Carijós. They are the most perfect implements which the artistic habilities of the aborigines of the south of Brazil was able to produce. Other articles of artistic perfection, rarely found in S. Paulo or south Brazil, are the *tembetás* made of quartz, rock crystal, green feldspar or bone. They consist of a cylindrical or flattened body which is passed through the lower slit lip, one transversal end being laid on top of the lip. The diameter of the cylindric part in our specimens varies from 16 mm. to 32 mm. Several other stone articles common in other parts of Brazil, are not found in S. Paulo. This refers as well to amulets made of nephrite and steatite, imitating the shape of frogs and other animals, and called *muiraquitans* (Amazonastones), as also to the slingstones and «bolas» of Rio Grande do Sul.

Nephritaxes which are not rare in the State of Bahia and Espirito Santo have so far as I can learn never been found southward of the State of Rio de Janeiro, either in Brazil or in the La Plata States. This question has been discussed in the last few years with reference to the work of Barbosa Rodrigues (N. 6) who defended the idea of an prehistoric asiatic importation of all the american nephrite artefacts. The discovery by the late Christovam Barreto of unworked nephrit blocs at Amargosa in the State of Bahia, where nephritaxes are unusually frequent, has demonstrated the brazilian origin of these objects. This matter has been treated in my paper on the Archeology of Brazil (N. 22, p. 550—551).

Pipes for smoking (caximabos) are not found in S. Paulo; but sometimes rounded or flattened stones pierced at one end to be hung round the neck, are to be found. So far as the productions of ceramic art are concerned, they are in general greatly inferior

to those of the Mounds of the Island of Marajó and other Amazonic regions.

Aside from simple pots for domestic use large funeral urns are found, generally covered with lids in the shape of smaller vessels. In these *igaçabas* are found the bones of the deceased, nearly always greatly decayed, and sometimes another bowl which then contains the bones. These funeral bowls of which the Museu Paulista has two, are carefully worked and artistically ornamented with outline drawings of red and black lines on a smooth white surface. In general the Guaranis and Tupis buried their deads in funeral urns, placing the bodies in a sitting posture. If, however a warrior died far from his village, they buried him only provisionally, transporting the bones or only the cranium afterwards to his hut in which he was definitively buried. It was probably for this purpose that the above mentioned funeral bowls were used while others, being much smaller, may have served for offering food. Usually these *igaçabas* and pots are roughly wrought, having thick walls plain or ornamented only with impressions of the fingers or of a stick. It is well known that the Tupis made very large jars for the preparation of the *cauim*, an alcoholic drink made from chewed maize. One of these immense jars is to be found in the building of the «Comissão Geographica e Geologica de S. Paulo». It is 65 cm. high; diam. of the aperture 40 cm. and greatest circumference 3 m. 21 cm. The industrial products of the aborigines above mentioned are only found by chance. The old villages have completely disappeared, thus making direct evidence of the former presence of the Indians, scarce. In this respect the inscriptions or petroglyphs found on the face of steep or almost inaccessible rocks call for special attention. Tristão Alencar de Araripe published a valuable study on this subject (N. 2), including the description and a picture of one in the State of S. Paulo near Faxina which Dr. Domingos Jaguaribe examined and copied.

In the neighbourhood of the same place was found an old cemetery with a great number of *igaçabas*. The tombs of the aborigines were generally isolated. *Igaçabas* with bones have often been found in Piratinin-ga and other districts of the capital of S. Paulo, formerly inhabited by Tupinaquins and other aborigines. Though the old villages of the aborigines have disappeared, one often recognizes the site of the huts, called *paradeiros*, distinguished in the clearings by the darker colour of the earth. It is in these places, the surface of which corresponds to that which would be occupied by a small house, that pieces of pottery, sometimes stone hatchets and other utensils are found. Besides these, charcoal and bones of animals are also found in the earth in these places and the dark colour of the ground is evidently caused by organic matter due to the remains of food. There is a group of stopping-places (*paradeiros*) which is very characteristic and is found only on the coast of S. Paulo and other States of the South of Brazil. They are the *Sambaquis*, huge heaps of oyster and other marine shells which, on the marshy plains of the region along the coast arise, like small hills, and which afforded a natural home for the aborigines. There they lived and also buried their dead. The true significance of these *sambaquis* was unknown until a short time ago, though the first archeological explorer of S. Paulo, engineer Carlos Rath, was well aware of it.

The idea is still widely spread that these heaps of shells like the Kjoekkenmøddings of Denmark were artificial accumulation of the shells of oysters and other shell-fish used as food by the Indians. Taking into consideration the size of these *sambaquis*, which are from 10 to 20 metres high and often 30000 to 40000 and even 100,000 m.³ in volume, it must be seen that they would be the most remarkable curiosity of the Brazilian coast at the time of its discovery. The historians of the sixteenth century however do not mention them and it was

only in the year 1797 that Frei Gaspar da Madre de Deus called attention to them, attributing them an artificial origin. According, to the studies of the writer there are in the south of Brazil two different groups of *sambaquis* one of which represents the remains of food of the aborigines and the other, natural deposits from the sea. To the first group belong the pseudo-*sambaquis* on the rolling lands in the outskirts of the city of Rio Grande do Sul, layers, not very thick, of dark earth intermixed with great quantities of fish-bones otoliths of fishes, shells, bones of game, pieces of charcoal, pots and other manufactured articles. The great *sambaquis* of the coast of the States of S. Paulo, Paraná and Santa Catharina present a totally different aspect, being immense accumulations of oyster shells (*Ostrea parasitica* Gm.), alternating sometimes with layers more or less horizontal of *berbigão* (*Cryptogramma braziliiana* Gm.) and other bivalve mollusks. To admit that these mounds of shells were heaped up by Indians would be to suppose that for decades they eat nothing but berbigão and then for other decades nothing but oysters. This hypothesis is not admissible, nor is that, of the Indians laying aside the shells for the purpose of building up their *sambaquis*, more so.

No remains of food or pieces of broken pottery or charcaol are found mixed with the shells. It is to be remarked that oysters and other shell-fishes are an important article of food of the coast population even at the present time, but that the shells thrown away decay in some years. Collossal and well preserved deposits are formed only under special conditions, and best under water. That the *sambaquis* of south Brazil are simply oyster banks formed in shallow sea water is proved by other geological facts. Of these we cite only the occurrence of the bones of whales in places where now-a-days no large cetacea can reach, and the occurrence of oyster banks in the affluents of the river Guahyba opposite to Porto Alegre. These

geological facts prove that in the south of Brazil as well as in the Plate river there was an overflow or transgression of the sea, elevating its level from 30 to 50 meters, in the pleistocene era, due to a temporary subsidence of the level of the coast territory. By a subsequent elevation of the coast, the shell-hills, formed below the sea level, rose up to their present situation above sea; then, in the low and swamped territory, they offered good conditions for settlements of the Indians.

The conclusions to which I have arrived with reference to the origin of the sambaquis have been confirmed by Benedicto Calixto, who published a paper accompanied by two maps on the ancient topography of the bay of Santos. Comparing the extension of the sea at the time of the discovery of Brazil with the actual conditions, one notes that the canals of the sea formerly were much larger and that many points occupied now by Mangrove swamps, were then overflowed by the sea. Benedicto Calixto proves thus that many of the sambaquis of the bay of Santos, now destroyed but quite wellknown with relation to their situation, could not have been heaped up by Indians in prehistoric times, because then the respective localities were still situated below the sea level.

The general conditions of the sambaquis of the coast of S. Paulo, their number, situation and composition, as well as the cultural objects, which have been found in them, have been quite fully treated of in the paper of A. Løefgren (N. 27) which forms the basis for future investigations.

I do not agree with the author with reference to the origin of the sambaquis. M. Løefgren considers all the sambaquis as artificial constructions and he is accompanied in this view by R. Krone (N. 23) who in his paper gives valuable informations on the human skulls, discovered by him in the sambaquis of the region of Iguape.

In my paper on the origin of sambaquis (of 1904

N. 20) I have somewhat modified the views expressed in my former paper on the same subject and in my paper on the comparative archeology of Brazil (N. 22, p. 535) I communicated the results of my recent investigations of the *sambaquis* in the neighborhood of Santos. The study of this paper will readily prevent mistakes of my ideas, such as those contained in the second paper of Loeffgren (N. 26).

The *sambaquis* are thus robbed of their supposed character of monuments erected by the aborigines, but nevertheless they lose none of their interest for the archeology of Brazil, preserving for us many of the articles made by the Indians who had their homes on them, at the period, as the level of the coast, after the transgression of the sea, was elevated again, by secular movement.

In view of these circumstances the anthropological matter referring to the *sambaquis* is relatively abundant, specially in regard to craniums. These are mostly brachycephalous corresponding to the description, given by Rodrigues Peixoto, of the craniums of the Tupis. The heads of the Guaraní Indians examined by the writer and those of the Cayuás measured by J. Ambrosetti being brachycephalous also, I formerly presumed that the craniums found in the *sambaquis* belonged to the same tribes of Tupis and Guaranís who dwelt on the coast, at the time of the discovery of Brazil. Ehrenreich however rejected the validity of this argument, as there exist also brachycephalous Tapuias.

Another objection that might be urged is that the bodies in the *sambaquis* were not buried in *igaçabas* as was the common practice among the Tupis and Guaranís. We know, however, that in this respect there was great disparity among the different tribes; some of them only buried children in *igaçabas*, while others buried their dead in cylindrical graves and yet others buried them wrapped in their hammocks. In every case however the absence, not only

of funeral urns but also of any pottery in the *sambaquis* is a remarkable fact which contributes also to reject the idea that the *sambaqui*-people belonged to the Tupi family and suggests the other one that they were Tapuias.

The cranium described by myself from the *sambaqui* of Cidreira, in Rio Grande do Sul, is like that of the Botocudos and evidently belonged to an Indian of the Guayaná family. J. B. de Lacerda has already called attention to the similarity between certain craniums from the *sambaquis* of St.^a Catharina and those of the Botocudos.

CONCLUSIONS.

It is thus evident that in the prehistoric period, there already existed in the south of Brazil, two families of Indians, whose descendants are even now found in the country. We have not, at present, data sufficient to enable us to calculate how far back the vestiges of the first inhabitants of the south of Brazil reach. We know at present of but few localities in South America where man co-existed with extinct animals. We are indebted to Florentino Ameghino for an extensive and valuable monograph on the antiquity of man in the La Plata regions. This author considers the pampean formation as pliocene, while I, examining the marine mollusks contained in it, found that they belonged without exception to species which still exist on the Atlantic coast of South America; I therefore incline to the belief of the post-tertiary age of these layers.

In Brazil, human bones have been found by Lund in Minas Geraes, in the same caves from which that celebrated naturalist took out the remains of extinct pleistocene mammalia. The human craniums of Lagôa Santa are exactly like those of the Botocudos. Doubts have been thrown on the contemporaneity of the man

of Lagoa Santa with the extinct mammalia of the cave. But the fact that the human craniums and bones, found in these caves, are like those of the mammalia from the same place, not only in colour and appearance but also in the chief feature of being fossil or calcined, leaves little doubt of the real coexistence of man with the extinct mammalia so well described by Lund and Winge. These are the principal results derived from the anthropological and archeological investigations made in the State of S. Paulo; and if, owing to the low degree of cultural development of the aborigines of these regions they reveal nothing extraordinary, they are not without interest and instruction in view of the agreement of the data furnished from such different sources as are the historical and archeological explorations on the one hand the anthropological, ethnological and linguistic studies on the other.

We have in this respect a sure basis from which to judge of the cultural and physical properties which have been transmitted to the existing rural population by their ancestors the aborigines of whom, up to the present date only a small part have kept their independence, the greater part having been swallowed up by the immigrated Luzo-Brazilian element, which forms the national element of the present population of S. Paulo.

It is interesting to note that we are able to discover in the actual culture of the rural population many vestiges of the preceeding indigenous culture. The names of a great number of localities, mountains, rivers, etc., are derived from the tupi language and in the veins of many of the rural labourers, the «caboclos» or «caipiras» runs blood of their Indians ancestors. Many of the most common cultivated plants, such as maize, beans, aipim, mandioca, batata, cotton, etc., had already been planted by the ancient Indians of S. Paulo and some of the manners of preparing food and alimentary preserves date from prehistoric times. For this reason many tupi words are generally accepted in

the present portuguese language of the population of S. Paulo, which however nowhere speaks the guarani dialect as happens in Paraguay. The regions of the State of S. Paulo, where the ancient customs and implements are most abundantly preserved is the littoral zone. I have dedicated a paper to these relics from the stone age (N. 21), in which I have described and figured some of these implements. While stone-axes every where, even amongst the only half civilised Indian tribes are now substituted by iron ones, we find in the littoral zone of S. Paulo many other implements of stone preserved, such as hearth stones, small grate-stones, etc., and also hammer-stones are occasionally used. The fishermen use for anchoring their canoes, which are of the primitiv Indian type, the «poita» or «poh-ita», a large rounded stone, surrounded by a network of bark strings, or the «igarateia», a rounded stone, enclosed by wooden hooks. Also the perforated clay disks, used as weights for fishnets, are the same as were used by the prehistoric fishermen, as is proved by such disks found in a funeral urn at S. Vicente.

The house of the «caipira» of the rural population is also but a slight modification of that of the Guaranis. It is interesting that thus many of the prehistoric implements and customs are preserved up to our day and probably further investigations will enlarge the number of these cases of relics of the stone age.

Thus the indigenous element of S. Paulo presents itself in three consecutive historical phases: the present indians, those of the time of the discovery and the people who inhabited the sambaquis and there buried their dead. Only with reference to this last point do doubts remain, and I have modified in this respect my opinion since the publication of the first edition of this paper. As the skulls, exhumed from the sambaquis seem to be essentially identical with those of the Tupis, I formerly believed both people to be identical. The cha-

racter of the polished stone axes is the same and pipes were not used by either of them.

There exists however some important differences between the Tupis and the sambaquis-tribes. No pottery is found in the sambaquis and therefore funeral urns so characteristic and common among the Tupis and Guaranis are lacking. A particular feature of the South-Brazilian sambaquis are further the beautiful zoolites, polished stone mortars in the shape of fishes and birds. As no one of the ancient chroniclers make mention of the existence of sambaquis on the shores of S. Paulo, it is probable that the culture of the sambaqui people is much older than that of the Indians who lived on the same coast at the period of the discovery.

The absence of pottery in the sambaquis is in strong contrast with the great developpement of the fabrication of polished stone implements and lead us to suppose that the respective people belonged to the Gês-family, in which we note also well polished stone axes and little if no pottery industry. Formerly I supposed, as said above, that the brachycephalous skulls of the sambaqui inhabitants indicates them as Tupis, but Ehrenreich has shown that this argument is not of value, as there exist also brachycephalous Tapuia tribes, such as the Cayapós.

It is therefore reasonable to conclude, that the people which habited the sambaquis belonged to the Tapuia family and lived on the South-brazilian coast a long time before the discovery of America and before the time of the southward directed migration of the Indians of the Tupi-family, by which they were destroyed or driven to the interior of the country.

The Indians of S. Paulo at present as well as at the time of the discovery nowhere possess a high degree of civilisation and also the influence of other higher developed cultural elements is almost unnoticeable. As I have shown (N. 16, and 22) we can verify in the State of Rio Grande do Sul the existence of

implements belonging to the Pampas Indians and also of those which are due to communications with the Calchaquis and other highly civilised tribes of the andine region of Argentina. Neither the «bolas» so common in Rio Grande do Sul are found at S. Paulo, nor pipes, though these, of the same shape as these found in Rio Grande do Sul, have been found in the interior of Bahia and in the intermediate regions of Central and Southern Brazil. The Indians of the Tupi group who inhabited the brazilian littoral zone at the epoch of the discovery smoked cigars, ignoring the use of pipes. Pipes and probably also spindles, have been transmitted to the Indians of eastern Brazil from the tribes inhabiting the andine and subandine regions of Argentina and Bolivia.

This influence of the andine ethnographical elements is strongest in the regions situated nearest to that zone and more and more feeble as the distances from it increase. The archeology of Rio Grande do Sul is much richer in such heterogenous cultural elements than that of S. Paulo, but even here they are not completely absent. Objects of metal, of silver, particularly, have been found sometimes in prehistoric sepultures of southern Brazil and Mr. Uhle (1) published a note on a prehistoric copper axe found in an island of the Ribeira, river in the State of S. Paulo.

This communication although quite isolated and surprising is not incredible as we know that Alvar Nunez Cabeça de Vaca (2) observed among the Guaranis small copper axes. The influence of a people of a higher cultural plane than that of the brazilian littoral zone, can be recognized in the wide distribution of the cultivated plants much more than in the exchange of the above mentioned articles of art. Although the

(1) Verhandl. der Berliner Anthropolog. Ges. 1888, p. 20.

(2) Alvar Nunez Cabeça de Vaca, Commentaires. Paris, 1837, p. 107.

true origin of these plants is almost entirely unknown at the present day.

Generally the influx of higher cultural influences moved in prehistoric Brazil from West to East while in historical times the direction of cultural transmission is as from East to West.

EXPLANATION OF THE MAPS

Maps, refering to the distribution of the brazilian Indians have been published by von Martius and Ehrenreich. The map of Martius, published in his Ethnography, which has been reproduced by Couto de Magalhães (N. 32), is very incomplet as far as concerned southern Brazil; it is destined specially to explain the former distribution of the tribes of the Tupi family.

The map of Ehrenreich refers to the present distribution of brazilian Indians. With the exception of some Tupi colonies of the State of S. Paulo only the distribution of the Caingangs is noted.

In the two present maps the blue colour designates the Tupi people and the red one that of the Tapuias. This name, embracing the tribes of southeastern Brazil, which are not Tupis, corresponds to the Gês of Ehrenreich, but not to those of von Martius. The yellow colour is given to all people which are not Tupis nor Tapuias.

MAP I

ANCIENT DISTRIBUTION OF THE SOUTH BRAZILIAN INDIANS

The data, on which this map is based are given in the text. The informations obtained from ancient writers is in general sufficient, but in some cases we can not exactly fix the point of contact between the central brazilian tribes and those of the eastern region. Of tribes, who do not belong to the Tupi, nor to the Gês family, we have to note in Rio Grande do Sul the Charruas, in S. Paulo the Carajás. With referen-

ce to the Guarüs or Guarulhos, a tribe of the Guayanãs, which lived at S. Paulo and Rio de Janeiro, where Conceição dos Guarulhos (S. Paulo) and S. Antoniodos Guarulhos (Rio de Janeiro) were founded with them, should be compared what I said in my paper on the Guayanás (N.º 19, p. 38).

The ancient inhabitants of Uruguay are treated by José H. Figueira (N. 13) with the addition of a map. Another map dedicated to the Indians of the region of the mouth of the Plate river at the time of the discovery, has been published by S. Lafone Quevedo (N. 25 p. 35) who in the respective paper gives important notes on these different people and their linguistic characteristics

To the people who are neither Tupis nor Tapuias belong different tribes of the La Plata region, of whom some, as the Charruas lived also in Rio Grande do Sul, and the Carajás, whose ethnological relations are not yet discovered. According to Martius and Gay (14 p. 54 and Notas p. 6) the Minuanos are Tupis, allied to the Tapes. Lafone Quevedo (N. 25 p. 36) says that the Minuanos according to Father Lozano, are also denominated Guenoas or Guanaos. This is the same name that the Guanoas or Guanaos of the upper Uruguay river bear, to whom refers the letter of Father Garcia, mentioned at p. 198 of N. 14.

MAP II

PRESENT DISTRIBUTION OF THE INDIANS OF SOUTHERN BRAZIL

This map is more or less schemtic, giving the distribution of the Indians as it has successively been described during the last 50 years. It is not possible to obtain exact information referring to the distribution, statistics, etc., of the indigenous population during the last five years. The informations here made use of are of quite different dates. I have however not accepted

such data, as referd to the first part of the past century, in which for example the Minuanos and Charruas were almost all destroyed by the revolution in Rio Grande do Sul, while in S. Paulo the Cayapós retired to Matto Grosso and the Cayuás imigrated from Paraguay and Alto Paraná. The Cayuás belong to the Guaranis and it is somewhat difficult to understand for what reasons they are distinguished from them.

The Caingangs of Rio Grande do Sul and S. Catharina have sometimes been called Botocudos, which is an error, as true Botocudos have never lived to the southward of Rio de Janeiro.

I am obliged to the Rev. p. Marcos Simoni of S. Paulo for some valious informations with respect to the Indians of the State of Paraná. As he informs me, the Eochavantes of Southern Matto Grosso live also in the State of Paraná, at the left border of the Paraná-river, between the Ivahy and Paranapanema-rivers.

Dr. Romario Martins has directed my attention to the following point: «In the State of Paraná are distinguished the Cayuás from the Cayguás. «Cayguás» are denominated the half-civilized Indians and «Cayuás» the savage ones». It seems that this singular distinction is made also in the Paraguay, (Cayuá and Caingue) and it explains the confusion which existe in the literature with respect to these terms. In the scientific literature this terminology is not admissible and we distinguish only, among the members of the Tupy family of Southern Brazil, the savage or half-civilized Cayuás from the civilized and baptized Guaranis.

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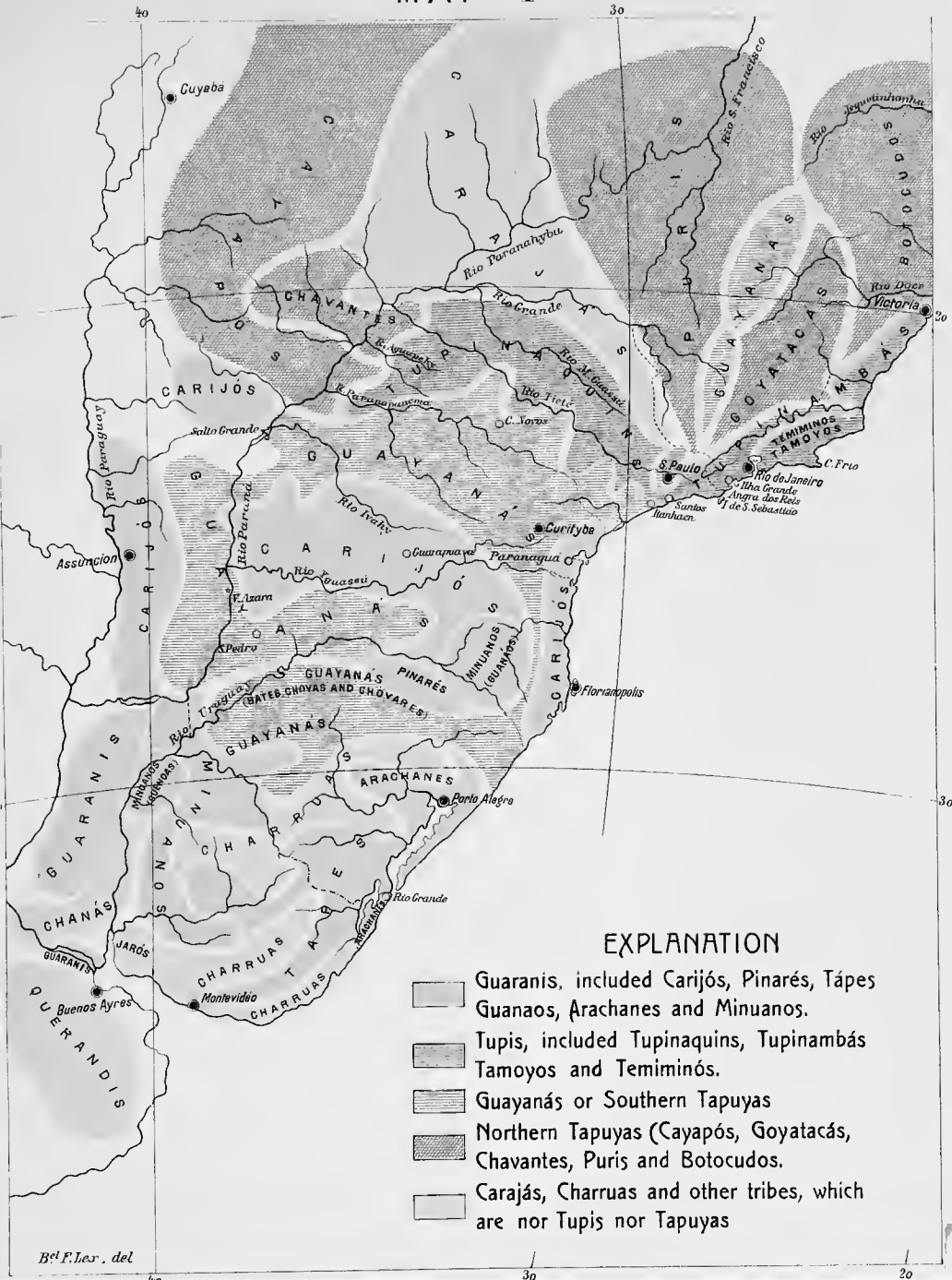
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CORRECTIONS.

P. 20, line 5, read «only» instead of «not only».

P. 30, line 4, read «Sambaqui-people» instead of «Carijós».

MAP I



MAP II

